Transportation Indicators for the Agricultural Containerized Shipping Industry

Transportation Services Branch
Transportation and Marketing Programs
Agricultural Marketing Service
U.S. Department of Agriculture

Second Quarter 2005

(April-June)

Issued July 2005

Indicator Agricultural Products U.S. to Asia	Current	% change	
		Last quarter	Last year
Rates - 2nd Quarter 2005			
Refrigerated shipments[1]	$3,696	3%	(3%)
Dry shipments[2]	$1,419	3%	36%
Surcharges			
Bunker (fuel) Adjustment Factor[1]	$275	(18%)	17%
Currency Adjustment Factor[3]	53	6%	(2%)
Volume - April 2005			
Outbound shipments [4]	117[5]	(4%)[5]	24%[5]
Capacity - 1st Quarter 2005, all products			
Container slots available [4]	1,620	(5.6%)	7%
Container slots used [4]	1,044	4%	4%
% of container slots used	64%	10%	(3%)

[1]per 40-foot container [2]per 20-foot container [3]for shipments to Japan only [4]thousand 20-foot containers
[5]monthly data presented, not quarterly

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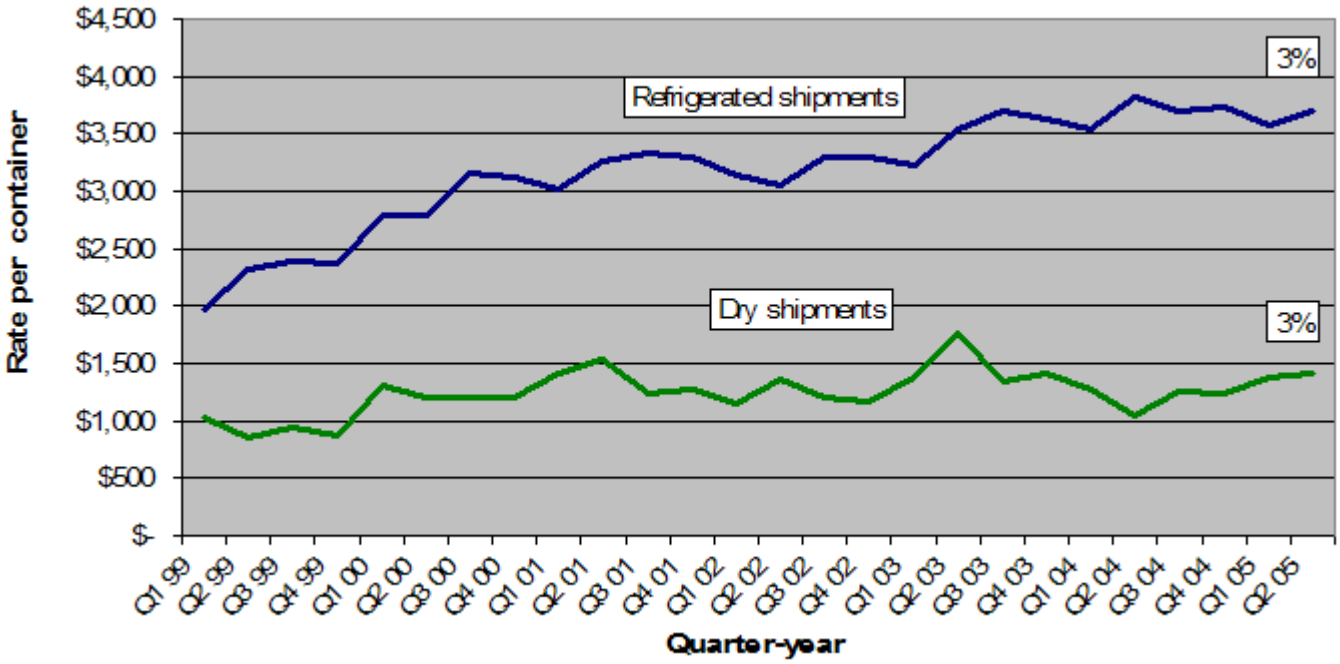
Container Rates: Agricultural Shipments

Refrigerated and Dry Commodities, U.S. to Asia



**Refrigerated rates are for 40-foot containers. Dry rates are for 20-foot containers.*
The indicators above are indexes based on a group of tariff rates for commodities tracked quarterly in the *Ocean Rate Bulletin*. Rates are weighted by market share for each shipping line, trade lane, and commodity. The refrigerated rate index includes: poultry, lettuce, frozen potatoes, grapes, apples, and oranges. The dry rate index includes: almonds, animal feed, pistachios, raisins, soybeans, and lentils. Rates include all surcharges and are calculated on a typical shipment for each commodity. See the list of Asian countries used in determining the refrigerated and dry rates.
Source: *Ocean Rate Bulletin, USDA/AMS, http://www.ams.usda.gov/tmd/ocean/index.asp, 1999-2005*

Rates increase during quarter 2, 2005. Dry and refrigerated rates both increased by 3 percent during quarter 2, 2005. Tariff rates for dry, low-value agricultural commodities such as animal feed, nuts and soybeans are 36 percent higher when compared to quarter 2, 2004. Refrigerated tariff rates are down 3 percent from the same period last year. The Westbound Transpacific Stabilization Agreement (WTSA) carriers have announced summer General Rates Increases for a variety of agricultural commodities such as fresh grapes, frozen poultry, and dried fruits and nuts, which are typically exported during quarter 3. Putting additional pressure on rates are the increasing Bunker Adjustment Factor surcharges recommended by the WTSA during quarter 3, 2005. The WTSA is a discussion group of major ocean carrier shipping lines operating in the U.S. to Asia trade lane. Member carriers discuss market situations, rates, and service availability.

So what? (follow this link to expand)

For agricultural exporters, the cost of shipping a container of product overseas can be as much as 50 percent of the final price of their product. Therefore, it is important for U.S. exporters to closely watch the trends of outbound container rates. It is necessary for shippers to keep in mind the trends for rates and surcharges, especially as they enter into service contract discussions in an effort to be better prepared.

What is a container rate? (follow this link to expand)

A rate is the amount charged by a shipping line for the carriage of each container of product. A "tariff rate" is a rate filed with the Federal Maritime Commission by the shipping line for the commodities likely to be carried and the regions served by the company.

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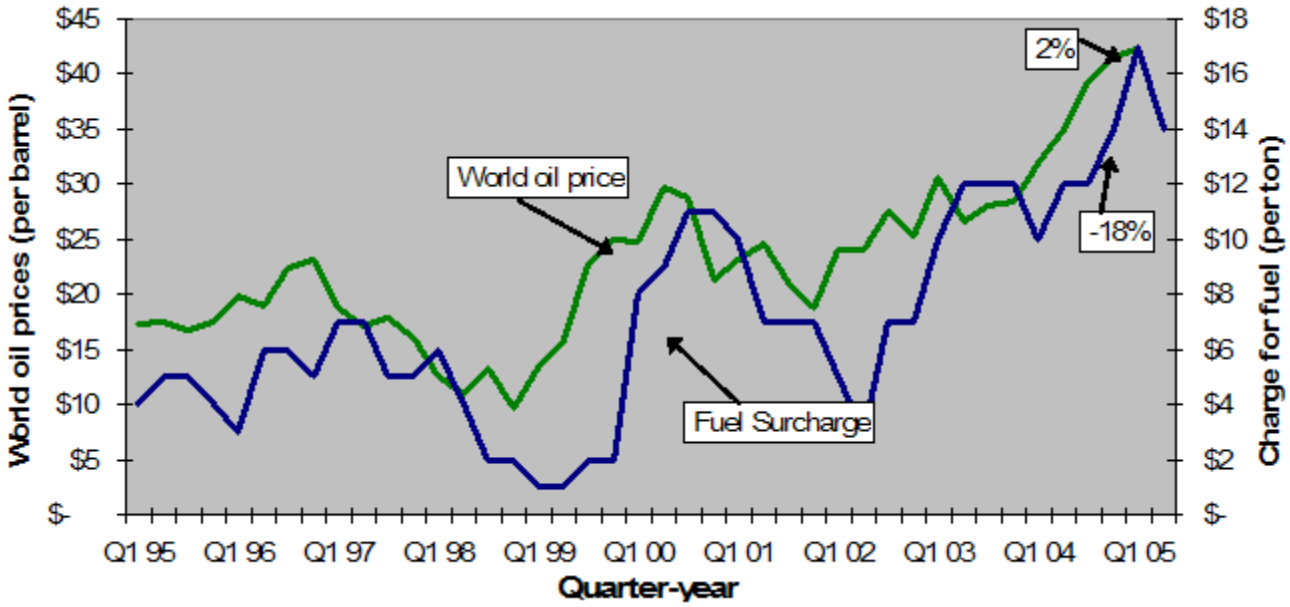
Surcharges: Bunker Adjustment Factor
A Special Charge for Fuel

Bunker Adjustment Factor Surcharge, Compared with World Oil Prices



Sources: *World oil prices: http://tonto.eia.doe.gov/oog/info/twip/twip_crude.html*
Bunker Adjustment Factor: Ocean Rate Bulletin, USDA, http://www.ams.usda.gov/tmd/ocean/index.asp

Bunker Adjustment Factor (BAF) surcharge drops despite a slight increase in oil prices. The $18 per-metric-ton fuel charge, in effect for quarter 1, 2005, dropped to $14 during quarter 2, 2005. This is an 18-percent decrease in the BAF surcharge despite a 2-percent increase in world oil prices. However, recommendations from the Westbound Transpacific Stabilization Agreement (WTSA) and publicly filed tariff rates (*Ocean Rate Bulletin*) indicate a scheduled increase of $8 per-metric-ton for the BAF surcharge during quarter 3, 2005. This increase will raise the BAF surcharge to $410 per 40-foot container (see BAF table). The additional $8 per-metric-ton increase will add $135 to the cost of shipping a 40-foot container of hay.

Bunker Adjustment Factor		
Rate	**Quarter 2**	**Quarter 3**
Per 40-foot container	$275	$410
Per 20-foot container	$220	$328
Per ton	$15	$22

World oil prices averaged over $56 per barrel in June and are expected to average $59 per barrel for quarter 3, 2005, approximately $15 per barrel above the year-ago level. As growth in world oil demand is projected to remain robust and world spare oil production remains low, crude oil prices are projected to remain above $55 per barrel for the rest of 2005 and 2006. (Source: Energy Information Administration, *Short-term Energy Outlook*, July 2005)

So what? (follow this link to expand)

This change in BAF is significant, especially for exporters shipping lower valued agricultural commodities, such as hay and cotton, since it can increase the cost of a shipment by more than 30 percent. When all-inclusive rates are set in service contracts, shippers are typically not asked to pay the higher surcharge; however, these shippers may face the increases during contract renewals.

What is the BAF? (follow this link to expand)

The BAF is a surcharge implemented by shipping lines to compensate for fluctuating fuel costs. It is also sometimes called "Fuel Adjustment Factor" or FAF. The surcharge is expressed either as a charge per ton or per container, depending on the type of base rate used.

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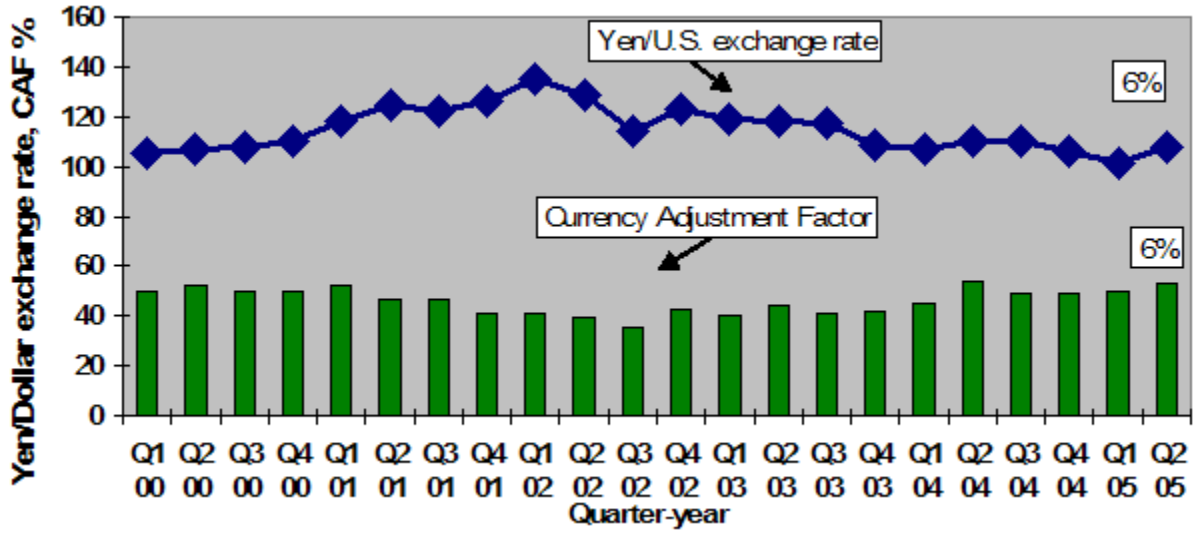
Surcharges: Currency Adjustment Factor (Japan)

Comparison of the Yen/Dollar Exchange Rate with the Currency Adjustment Factor (CAF) for Shipments to Japan



Sources: *Federal Reserve Statistical Release, Foreign Exchange Rates, Historical Data http://www.federalreserve.gov/releases/H10/hist/; Ocean Rate Bulletin, AMS, 2000- Quarter 2, 2005*

Currency Adjustment Factor (CAF) surcharge reaches near record level. During quarter 2, 2005, carriers increased CAF surcharges by 6 percent as recommended by the Westbound Transpacific Stabilization Agreement (WTSA) for shipments to Japan. CAF surcharges for quarter 2, 2005, reflect a less than 2-percent increase when compared with the same period last year. In 2004, CAF surcharges reached a high of 54 percent for shipments to Japan, one of the highest CAF surcharges recorded by USDA's Ocean Rate Bulletin.

Currency Adjustment Factor		
Country	**Quarter 2**	**Quarter 3**
Japan	53%	51%
Singapore	10%	10%
Taiwan	5%	6%

Value of the U.S. Dollar increases during quarter 2, 2005. When compared with the previous quarter, the yen per dollar exchange rate increased 6 percent during quarter 2, 2005. As a result of the appreciation in the value of the U.S. dollar, the WTSA has recommended a decrease in CAF surcharges to 51 percent for shipments to Japan during quarter 3, 2005. This decrease in CAF surcharges represents a savings of approximately $25 for a 40-foot container of hay and a savings of $51 for a 40-foot container of poultry. The WTSA has also recommended a one percentage point increase in CAF surcharges for shipments to Taiwan (see Currency Adjustment Factor table). The WTSA is a discussion group of major ocean carrier shipping lines operating in the U.S. to Asia trade lane. Member carriers discuss market situations, rates, and service availability.

So what? (follow this link to expand)

The CAF can add as much as 50 percent to the rate U.S. shippers pay for containers heading to Japan, as seen throughout the year 2004 when the surcharge reached 54 percent. As a result, shippers should estimate their transportation costs on base rates and the extra surcharges. Shippers may also want to negotiate for an "all inclusive" rate in a service contract that includes surcharges such as this, as a way to minimize costs.

What is the CAF? (follow this link to expand)

The CAF allows carriers to pass on the effects of changing exchange rates on their costs to shippers--the CAF rises as U.S. exchange rates fall. It is charged as a percent of the base rate and is typically not applied to other surcharges. AMS research has shown a close relationship between

the CAF and the exchange rate to Japan. As the dollar weakens in value, meaning fewer yen can be purchased per dollar, the cost of doing business in foreign countries increases and/or the value of a freight bill paid in dollars decreases, and the CAF is increased to offset this change. The only major difference appears to be the lag caused by the CAF being based on the average exchange rate for the previous 3 months. *(Casavant, K. and Wilson, W., "Evaluation of the Use of Currency Adjustment Factor (CAF) Surcharges in Pacific Northwest Ocean Transportation," submitted to Transportation and Marketing Programs/USDA, March 1991)*

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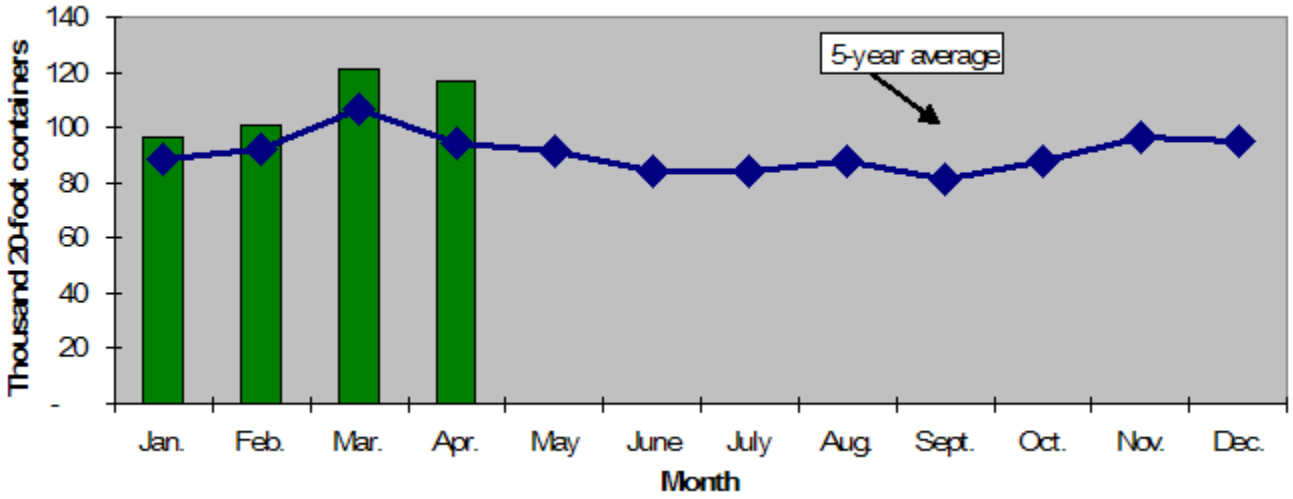
Outbound Volume: Agricultural Shipments

Containerized Agricultural Products, U.S. to Asia



Source: *Port Import Export Reporting Service (PIERS), Journal of Commerce, New York, 2005*
See a list of Asian countries used to calculate the volume numbers above.

April exports to Asia show strong demand for U.S. agricultural products. Following the normal trend for containerized agricultural exports, shipments during the month of April dropped 4 percent from the previous month. However, April 2005 exports show strong increases over April 2004 and the 5-year average. April 2005 containerized agricultural exports to Asia are up 24 percent over April 2004 levels and 23 percent above the 5-year average. Commodities contributing to the increase include poultry and soybeans which saw a 340 percent and a 260 percent increase, respectively, over April 2004 levels. Additionally, containerized exports of animal feed and fresh oranges made substantial gains in April 2005, over April 2004 shipments.

So what? (follow this link to expand)

Shipments to Asia are the focus for this report because annually, nearly 60 percent of all U.S. agricultural containerized shipments are destined for Asian markets. Trade volumes overall can give an indication of the demand for space on vessels in the trade lanes and can be a signal to changes in rates and equipment availability. However, although agricultural commodities are only one component of U.S. exports to Asia and rates are not impacted much by agricultural trade volumes alone, in terms of equipment availability (such as temperature- and atmosphere-controlled containers), it is important for shippers to know the potential for competition, especially when there are equipment shortages. Further, when commodity peak seasons do occur, especially for those commodities demanding special equipment, such as fresh fruit, shipping lines may impose a peak season surcharge, as witnessed in the late fall of 2002.

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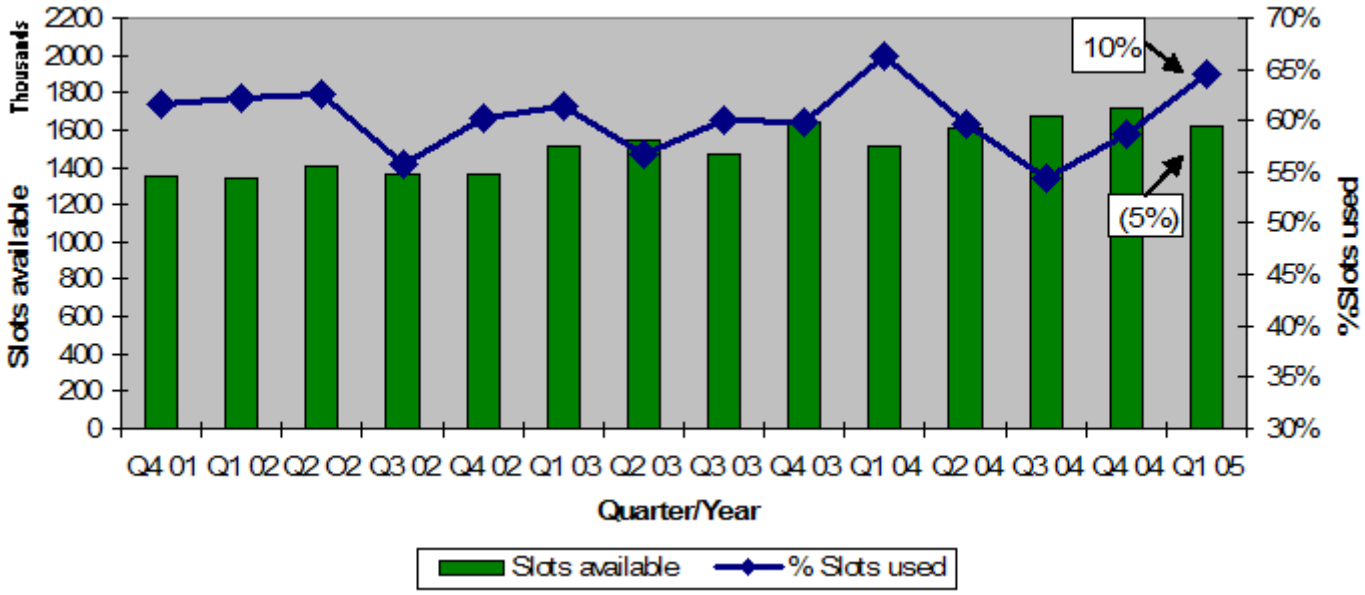
Capacity and Utilization

Outbound Container Slots Available vs. Slots Used, U.S. to Asia



Source: *On Board Review, PIERS, New York, 2001-Quarter 1, 2005*

Vessel utilization high during quarter 1, 2005. The percentage of container slots used during quarter 1, 2005, increased by 10 percent over quarter 4, 2004. This 10-percent increase in the percentage of container slots used may be in response to the 5-percent decrease in container slots made available by the carriers. Contributing to the increase in container slots used were strong U.S. containerized agricultural exports during quarter 1, 2005 (see Volume Section). Overall available container slots were 7 percent above quarter 1, 2004.

Carriers continue to order vessels that carry up to 10,000 20-ft containers. Since the beginning of the year, China Ocean Shipping Company (COSCO) has ordered 8 10,000 TEU* vessels, the largest ships on order in the world. These ships are scheduled to be delivered in 2008 and quarter 1, 2009. Carriers such as COSCO and French-owned CMA-CGM have been using 8,000 TEU vessels since early 2004. In the U.S-Asia trade lanes, carriers are using these post-panamax ships to call deep-water ports in Southern California and adding their smaller vessels to routes calling Northern California and the Pacific Northwest.

**TEU: 20-foot-equivalent unit or 20-foot-long cargo container*

So what? (follow this link to expand)

For U.S. agricultural exporters, overall use of available container slots for container ships in a particular trade lane can have a significant effect on the rates and services offered by shipping lines. When slot use is down, carriers can compete for cargo to fill the empty containers that must be repositioned back to Asia for use in the Asia to U.S. trade lanes. Carriers often reduce rates to compete for low-valued agricultural products such as hay and animal feed. Products such as these require less handling and fewer services but fill containers, which is attractive to carriers in need of cargo. In contrast, when space is limited, carriers can react to the high demand by increasing freight rates, providing preference to high-valued cargo, which moves at higher freight rates.

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Sources and Related Information

Sources

Rates and surcharges reported in the AgCI are taken from the *Ocean Rate Bulletin* (ORB).
The ORB offers a side-by-side comparison of rates for high-valued containerized agricultural commodities using actual shipping line market share.

- Exchange rates compiled by the Federal Reserve
- Fuel price data compiled by the Energy Information Administration of the Department of Energy
- Surcharge information provided by the Westbound Transpacific Stabilization Agreement Web site at www.wtsacarriers.org/charges.html

Volume data reported in the AgCI are taken from the Port Import Export Reporting Service (PIERS), a product of the *Journal of Commerce*.

Trade Data:

- Department of Commerce, U.S. Census Bureau
- USDA Foreign Agricultural Service and Economic Research Service

Capacity and utilization data used in the AgCI are sourced from the *On Board Review,* a product of PIERS and the *Journal of Commerce*.

Additional Resources:

Agricultural Ocean Transportation Trends (semiannual publication)
Identity Preserved Grain, A Logistical Overview (.pdf)
Federal Maritime Commission
Energy Information Administration, Department of Energy

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